## Traffic Control Devices Manual Part 8

# Code of practice for temporary traffic management (CoPTTM) 

manual number: SP/M/010

## Section H

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## More information

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## STATIC OPERATIONS

| No. | LEVEL 3 ROADS |  |
| :---: | :---: | :---: |
| ONE-WAY MULT-LANE ROAD |  |  |
| H1.1 | Shoulder closure | No temporary speed limit |
| H1.2 | Other hazard | Flooding, slips, slippery surface |
| H1.3 | Right-lane closure |  |
| H1.4 | Two-lane closure | One-lane temporary diversion |
| H1.5 | Left-lane closure | Chicane layout |
| H1.6 | Site access |  |
| H1.7 | Right-lane closure |  |
| H1.8 | Left-lane closure | Chicane layout |
| H1.9 | Right and centre lane closure |  |
| H1.10 | Left and centre lane closure | Chicane layout |
| H1.11 | Right and centre lane closure | Two lane temporary diversion |
| H1.12 | Left-lane closure | On-ramp within worksite |
| H1.13 | Left-lane closure | Off-ramp within worksite |
| H1.14 | Off-ramp closure |  |
| H1.15 | Road closure | Detour via off ramp |
| H1.16a | Closure example | On-ramp within worksite |
| H1.16b | Closure example | Low accessed site |
| H1.16c | Closure example | High accessed site |
| H1.16d | Closure example | Off-ramp within worksite |
| H1.17 | Long-term closure | Left-lane closure - barrier |
| H1.18 | Long-term closure | Right-lane closure - barrier |
| MOBILE OPERATIONS |  |  |
| ONE-WAY MULTI-LANE ROAD |  |  |
| H2.1 | Work vehicle is more than five (5) metres from the edgeline - Zone A |  |
| H2. 2 | Work vehicle is between two (2) and five (5) metres from the edgeline - Zone B | Rear visibility is GREATER than the clear sight distance |
| H2.3 | Work vehicle is between two (2) and five (5) metres from the edgeline - Zone B | Rear visibility is LESS than the clear sight distance |
| H2.4 | Work vehicle is between zero (0) and two (2) metres from the edgeline - Zone C |  |
| H2.5 | Work vehicle on live lane-Zone C |  |
| H2.6 | Work vehicle on live lane or within 2 m from live lane - Zone C | No available shoulder width for AWVMS within $1,600 \mathrm{~m}$ of work vehicle |
| H2.7 | Work vehicle on live lane or within 2 m from live lane - Zone C | Personnel on the live lane |
| H3.1 | Semi-static closure | Left-lane closure |
| H3. 2 | Semi-static closure | Right and centre lane closure |

LEGEND FOR DIAGRAMS

| Working space |  |  |  | Mandatory: <br> - Cones <br> - Signs |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Safety zones |  |  |  | Optional: <br> - Cones <br> - Signs | $\begin{aligned} & \text { } \\ & \text { ミ } \\ & \text { 戶 } \end{aligned}$ |  |
| Edgeline or edge of trafficable lane (indicated by solid black line) |  |  |  | Hazard area |  |  |
| Edge of Seal (indicated by dotted line next to solid black line) |  |  |  |  |  |  |

LEVEL 3 LAYOUT DISTANCES TABLE


## General

Except for delineation device spacings, which are maximum values, the distances specified in the above table are minimum values. Approach signage, the initial taper(s) and any longitudinal safety zone associated with that taper must be based on the permanent speed limit. Any subsequent tapers, and the remainder of the worksite, are based on the applicable permanent or TSL.

## ONE-WAY MULTI-LANE ROAD

## Shoulder closure

No temporary speed limit
Notes

1. A 10 m taper, with a minimum of 5 cones, is allowed where shoulder width is 2.5 m or less
2. If a 10 m taper is used, an

RD6R is only required at
the head of the taper
3. *For shoulders exceeding
the head of the taper
3. *For shoulders exceeding 2.5 m width, apply the calculation of taper length for lateral shift of less than 3.5 m :

W×H
3.5

W = Width of lateral shift
$H=$ Taper length in metres from the level 3 layout



## ONE-WAY MULTI-LANE ROAD <br> Other hazard <br> Flooding, slips, slippery surface

Notes

1. This diagram is for initial response only. Appropriate long term TTM must be installed as soon as practical
2. This layout should only be used for shallow flooding that vehicles can traverse while remaining in their correct lane(s)
3. A 10 m taper, with a minimum of 5 cones, is allowed where shoulder width is 2.5 m or less
4. The advance warning sign may be any one of the following:

5. If necessary, erect TG4 DRY YOUR BRAKES sign
6. If TSLs are not required, the warning distance must be at least $2 \times C$


Level 3

## ONE-WAY TWO-LANE ROAD

Right-lane closure


## ONE-WAY TWO-LANE ROAD

Two-lane closure
One-lane temporary diversion using shoulder
Notes

1. *Calculation of taper length for lateral shift of less than 3.5 m is:

W x
3.5
$\mathrm{W}=$ Width of lateral shift
I = Taper length in metres from the level 3 layout distance table
2. TSLs to be repeated
400m maximum cen
3. If delays are likely, a
T143 DELAYS POS
sign either 1 km or 2 k
advance of the work
(1) peLars
$\mathbf{1 ~ k m}$
4. Where there is a lane shift, a 10 m minimum offset should be used to enable heavy vehicles to make the shift

5. C.4.3.1 - On level 3 roads cones are required from the TSL sign to the start of the taper or hazard area where no taper is installed. Where the edgeline is well defined (ie by a clean kerb and channel) the line of cones is not required


This drawing must not be used as a TMP diagram


## ONE-WAY TWO-LANE ROAD <br> Left-lane closure


4. Where there is a lane shift, a 10 m minimum offset should be used to enable heavy vehicles to make the shift



## ONE-WAY MULTI-LANE ROAD

Right-lane closure

## ONE-WAY MULTI-LANE ROAD <br> Left-lane closure <br> Chicane layout


4. Where there is a lane shift, a 10 m minimum offset should be used to enable heavy vehicles to make the shift

5. For the centre median, tubular delineators temporarily fixed to the surface may be used, or for a long term situation a new centreline may be applied



## ONE-WAY MULTI-LANE ROAD

Right and centre lane closure

4. Refer C.4.3.1 - On level 3 roads cones are required from the TSL sign to the start of the taper or hazard area where no taper is installed


ONE-WAY MULTILANE ROAD
Right and centre lane closure
Two lane temporary diversion
Notes

1. *Calculation of taper
for lateral shift of less
3.5 m is:
$\frac{\mathrm{W} \times \mathrm{I}}{}$
3.5
$\mathrm{~W}=$ Width of lateral
I = Taper length in met
from the level 3 layout
distance table
2. TSLs to be repeated
400m maximum cent
3. If delays are likely, add
T143 DELAYS POSS
sign either 1 km or 2 k
advance of the works
in molars
1 km
4. Where there is a lane shift, a 10 m minimum offset should be used to enable heavy vehicles to make the shift

5. For the centre median, tubular delineator temporarily fixed to the surface may be used, or for a long term situation a new centreline may be applied


RS1/RS2/RS3 || | | ||RS1/RS2/RS3

## ONE-WAY MULTI-LANE ROAD

Left-lane closure
On-ramp within worksite



## ONE-WAY MULTI-LANE ROAD <br> Off-ramp closure



## ONE-WAY MULTI-LANE ROAD

## Closure example

On-ramp within worksite

## Notes

1. This diagram is part of a series of diagrams providing example diagrams for a motorway closure:

- H1.16a-Closure of on-ramp within worksite
- H1.16b - Closure example low accessed site
- H1.16b - Closure example high accessed site
- H1.16d - Closure of off-ramp within worksite

2. Where a motorway is completely closed to traffic in one or both directions, any on or off ramps impacted must also be closed
3. Cones across the on-ramp to be placed at 1 m centres


This drawing must not be used as a TMP diagram

## ONE-WAY MULTI-LANE ROAD

## Closure example

Low accessed site within worksite

## Notes

1. This diagram is part of a series of diagrams providing example diagrams for a motorway closure:

- H1.16a - Closure of on-ramp within worksite
- H1.16b - Closure example low accessed site
- H1.16b - Closure example high accessed site
- H1.16d - Closure of off-ramp within worksite

2. Where the motorway is completely closed to traffic in one direction or both directions, the normal application of road closure signs, cones, barriers, fences or barricades at on and off ramps must be reinforced by a double line of cones at a normal warning distance from the working space
3. The double lines of cones must be either continuous or chicaned
4. TMA vehicles parked outside this inner cordon must be parked with their attenuators down and facing the normal direction of traffic. Vehicles inside the cordoned worksite are not subject to this requirement
5. Cones in tapers and across road to be placed at 1 m


## ONE-WAY MULTI-LANE ROAD

## Closure example

High accessed site within worksite

## Notes

1. This diagram is part of a series of diagrams providing example diagrams for a motorway closure:

- H1.16a-Closure of on-ramp within worksite
- H1.16b - Closure example low accessed site
- H1.16b - Closure example high accessed site
- H1.16d - Closure of off-ramp within worksite

2. Where the motorway is completely closed to traffic in one direction or both directions, the normal application of road closure signs, cones, barriers, fences or barricades at on and off ramps must be reinforced by a double line of cones at a normal warning distance from the working space
3. The double lines of cones must be either continuous or chicaned
4. TMA vehicles parked outside this inner cordon must be parked with their attenuators down and facing the normal direction of traffic. Vehicles inside the cordoned worksite are not subject to this requirement
5. Where there are oversized vehicles being used, the 20 m gap in the chicanes may be increased
6. This is a secondary safety element for the worksite
7. Cones in chicanes to be placed at 1 m centres


## EXAMPLE ONLY

This drawing must not be used as a TMP diagram


## ONE-WAY MULTI-LANE ROAD

## Closure example

Off-ramp within worksite

## Notes

1. This diagram is part of a series of diagrams providing example diagrams for a motorway closure:

- H1.16a - Closure of on-ramp within worksite
- H1.16b - Closure example low accessed site
- H1.16b - Closure example high accessed site
- H1.16d - Closure of off-ramp within worksite

2. Where a motorway is completely closed to traffic in one direction or both directions, any on or off ramps impacted must also be closed
3. Cones across the on-ramp to be placed at 1 m centres

?


## ONE-WAY MULTI-LANE ROAD <br> Long-term closure <br> Left-lane closure - barrier



## ONE-WAY MULTI-LANE ROAD <br> Long-term closure <br> Right-lane closure - barrier



ONE-WAY MULTI-LANE ROAD
Work vehicle is more than five (5) metres from the edgeline - Zone A

ONE-WAY MULTI-LANE ROAD
Work vehicle is between two (2) and five (5) metres from the edgeline - Zone B
Rear visibility is GREATER than the clear sight distance
Rear visibility is GREATER than the clear sight distance


ONE-WAY MULTI-LANE ROAD
Work vehicle is between two (2) and five (5) metres from the edgeline - Zone B
Rear visibility is LESS than the clear sight distance


ONE-WAY MULTI-LANE ROAD
Work vehicle is between zero (0) and two (2) metres from the edgeline - Zone C


ONE-WAY MULTI-LANE ROAD
Work vehicle on live lane - Zone C

Notes

1. The shadow vehicle must be fitted with a TMA and the R3-13.3 sign consisting of the red and white delineation, the RD6T (light arrow) and the blue disk and white arrow RD6L/R
2. Always try to use the shortest distance where a range is displayed (eg 100 m to $1,600 \mathrm{~m}$, try for 100m)


## ONE-WAY MULTI-LANE ROAD <br> Work vehicle on live lane or within 2 m from live lane - Zone C Personnel on the live lane

## Notes

1. The shadow vehicle must be fitted with a TMA and the R3-13.3 sign consisting of the red and white delineation, the RD6T (light arrow) and the blue disk and white arrow RD6L/R
2. Always try to use the shortest distance where a range is displayed (eg 100 m to $1,600 \mathrm{~m}$, try for 100m)

ONE-WAY MULTI-LANE ROAD

## Semi-static closure

Left-lane closure

## Notes

1. The shadow vehicle must be fitted with a TMA and the R3-13.3 sign consisting of the red and white delineation, the RD6T (light arrow) and the blue disk and white arrow RD6L/R
2. The AWVMS may be replaced by T1B signs installed on both sides of the road
3. Where an AWVMS is used, cone taper $(\mathrm{H})$ is optional
4. Always try to use the shortest distance where a range is displayed (eg
100 m to $1,600 \mathrm{~m}$, try for 100m)


Note:
This page is to be used as the layout distances table for the level 2 static and mobile diagrams.
Print this page on A3 paper and fold it to fit an A4 page.
Unfold this page when you want to view the layout distances table and a diagram at the same time.

| Working space |  |  |  | Mandatory: <br> - Cones <br> - Signs |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Safety zones |  |  |  | Optional: <br> - Cones <br> - Signs | $\begin{aligned} & \text { 戶 } \\ & \text { } \\ & \text { 戶 } \end{aligned}$ |  |
| Edgeline or edge of trafficable lane (indicated by solid black line) | $\begin{gathered} \text { Edgeline or } \\ \text { edge of trafficable lane } \\ \hline \end{gathered}$ | ! |  | Hazard area |  |  |
| Edge of Seal (indicated by dotted line next to solid black line) |  |  |  | Barrier <br> Chevron |  |  |


| Permanent/TSL (km/h) |  |  |  |  |  | -80 |  | 100 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Traffic signs |  |  |  |  |  |  |  |  |  |
| A | Sign visibility distance (m) |  |  |  |  | 100 |  | 120 |  |
| C | Sign spacing (m) - Desirable |  |  |  |  | 160 |  | 200 |  |
| * | Sign spacing (m) - Minimum |  |  |  |  | 80 |  | 100 |  |
| Safety zones |  |  |  |  |  |  |  |  |  |
| D | Longitudinal (m)* |  |  |  |  | 45 |  | 60 |  |
| E | Lateral (m) |  |  |  |  |  |  |  |  |
|  | 1. Behind cones etc |  |  |  |  | 1 |  | 1 |  |
|  | 2. Behind concrete barrier |  |  |  |  | 0.5 |  | 0.5 |  |
|  | 3. Behind other barriers |  |  |  |  | As recommended by manufacturers |  |  |  |
| Tapers |  |  |  |  |  |  |  |  |  |
| H | Initial taper length per lane (m)** |  |  |  |  | 150 |  | 180 |  |
| I | Subsequent taper length per lane (m) |  |  |  |  | 80 |  | 100 |  |
| K | Minimum distance between tapers (m) |  |  |  |  | 80 |  | $100 * * *$ |  |
| Delineation devices |  |  |  |  |  |  |  |  |  |
|  | All tapers (m) |  |  |  |  | 2.5 |  | 2.5 |  |
| $\stackrel{3}{2}$ | Cones parallel to the lane (eg between tapers and alongside the working space) (m) |  |  |  |  | 10 |  | 10 |  |
|  | At merge and diverge points for ramps and slip lanes, intersecting road entry and exit points, and worksite access points |  |  |  |  | 2.5 m for 20 m either side of a change in alignment |  |  |  |
| - For temporary speeds less than $80 \mathrm{~km} / \mathrm{h}$ use the C2.6 Level 2 worksite layout distances table. <br> * The desirable sign spacing distance must be used wherever possible. The minimum sign spacing distance may only be used where there are road environment constraints. <br> Where only one sign is erected in advance of the start of a cone taper the distance from the sign to the start of the taper must be $2 \times \mathrm{C}$. |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| * A longitudinal safety zone is not required when a barrier completely protects the approach end of the worksite. Refer subsections H 1.17 and H 1.18 |  |  |  |  |  |  |  |  |  |
| ** Taper length is based on a single lane shift of 3.5 m . |  |  |  |  |  |  |  |  |  |
| *** Must be altered if required to meet the supplementary TSL distance. |  |  |  |  |  |  |  |  |  |
| Lane widths |  |  |  |  |  |  |  |  |  |
| Speed (km/h) |  | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
| F | Lane width (m) | 2.75 | 2.75 | 3.0 | 3.0 | 3.25 | 3.25 | 3.5 | 3.5 |

## General

Except for delineation device spacings, which are maximum values, the distances specified in the
above table are minimum values. Approach signage, the initial taper(s) and any ongitudinal safety zone associated with that taper must be based on the permanent speed limit. Any subsequent tapers, and the remainder of the worksite, are based on the applicable permanent or TSL

